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SCIENTIFIC NOTES  
 REDISCOVERED SPECIES AND REVISED KEY TO THE  
 FLORIDA THIEF ANTS (HYMENOPTERA: FORMICIDAE)

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A series of seven specimens of the thief ant, *Solenopsis trunctorum* Forel, was collected by the junior author in February 1988 in mixed hardwood-pine litter adjoining an old field habitat 2-3 mi SW of Archer in Alachua Co., FL. This species had been reported from Florida by Smith (1979), but no specimens from the state were known despite an extensive search by the senior author. *Solenopsis trunctorum* was therefore not included in the taxonomic revision by Thompson (1989) for the Florida thief ants. The emended key which follows includes *Solenopsis trunctorum*, but retains figure references from Thompson (1989). The specimens will be deposited in the Florida State Collection of Arthropods, Gainesville, FL.

Key to workers of Florida thief ant species

1. Large, reddish brown species (HL 0.56-0.58; HW 0.50-0.52; WL 0.68-0.70) ..... *trunctorum* Forel
- 1'. Distinctly smaller, yellow or dark-bodied species (HL and HW 0.48 or less, WL 0.32-0.63) ..... 2
2. Petiolar node (Fig. 23) placed somewhat anterior to the petiolar-postpetiolar juncture so that the petiole has a distinct slender posterior peduncle; body either uniformly dark brown or with lighter reddish brown head and/or thorax; arboreal ..... *picta* Emery
- 2'. Petiolar node placed near the petiolar-postpetiolar juncture (Fig. 15); body usually pale yellow, or if dark, then the appendages are pale; subterranean (except one yellow arboreal species) ..... 3
- 3(2'). Head, thorax and gaster dark brown; appendages pale brown to pale yellow; (Fig. 13-16) ..... *nickersoni* Thompson
- 3'. Usually entire body pale yellow to somewhat darker yellow, but one species (*carolinensis*) often with moderate infuscation on head and gaster .... 4
- 4(3'). Eyes small (length  $\leq$  0.02 mm), most of eye area the same color or only slightly darker than the rest of the head; head with distinct median strip free of punctures and hairs which is weakly impressed forming longitudinal furrow (Fig. 30) ..... 5
- 4'. Eyes normal size (length at least 0.03 usually 0.04 mm); eye area mostly brown to black; head without median strip free of hairs and punctures ..... 6

- 5(4). Head narrow, elongate (Fig. 26) and flat (HI 72-81) (Fig. 25); very small species (HTL 0.61-0.69 mm) ..... *tennesseensis* M. R. Smith
- 5'. Head proportionately not as narrow, only slightly oblong and convex ventrally (HI 89-94) (Fig. 29); medium-sized species (HTL 0.76-0.83 mm) ..... *tonsa* Thompson
- 6(4'). Large species (HTL 0.84-1.14 mm); head, from above, nearly square (HI 91-100) with numerous (ca. 200) hairs arising from punctures which, lie in parallel rows (Fig. 18); head in lateral view with distinctly convex ventral margin ..... *pergandei* Forel
- 6'. Smaller species (HTL 0.64-0.80); head clearly oblong (HI 82-92) with far fewer (< 100) hairs which do not lie in parallel rows; head in lateral view not greatly convex ventrally ..... 7
- 7(6'). Eye longer than broad, nearly oval, but wider anteriorly giving a slightly almond shape; eyes with one black facet anteriorly followed by a central yellow area with a second smaller black facet at the posterior eye corner; body entirely light brownish yellow or with gaster slightly infuscated; arboreal ..... *corticalis* Forel
- 7'. Eye nearly circular, facets light-colored, and surrounded by black line, or by uniform black areas that are not concentrated at the anterior and posterior eye corners; body yellow to brownish yellow with or without infuscation; subterranean ..... 8
- 8(7'). Eye normal sized (0.04 mm); body yellow to brownish yellow; promesopleural suture, below mesothoracic spiracle, only slightly darker than rest of thorax and shaped like a half-boomerang, the tapered dorsal end of the suture extends posteriorly but does not encircle the spiracle; thorax, in profile, with flattened area before and after the metanotal groove (Fig. 5, but not completely aligned) ..... *carolinensis* Forel
- 8'. Eye smaller (0.030-0.035 mm); body clear yellow; promesopleural suture somewhat hourglass-shaped with a reddish orange outline which extends to encircle the spiracle; dorsum of thorax smoothly curved, not flattened before and after the metanotal groove (Fig. 1) ..... *abdita* Thompson

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#### REFERENCES CITED

- SMITH, D. R. 1979. Superfamily Formicoidea, pp. 778-875 in Krombein, K. V. et al. (eds.), Catalog of Hymenoptera in America North of Mexico. Agric. Monogr. 2, Washington: Smithsonian Inst. Press.
- THOMPSON, C. R. 1989. The thief ants, *Solenopsis molesta* group, of Florida (Hymenoptera: Formicidae). Florida Entomol. 72: 268-283.